REMARKS

This amendment is responsive to the Office Action of May 13, 2008. Reconsideration and allowance of **claims 1-17, 20-24, 26, and 27 are requested.**

The Office Action

Claims 1-3, 7-10, 13, 16, 17, 20-22, and 26 were rejected under 35 U.S.C. 102(e) as being anticipated by Goren et al. (U.S. Patent No. 7,069,025).

Claims 4-6 and 23-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Diener et al. (U.S. Patent No. 7,006,838).

Claims 11 and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Rudowicz et al. (U.S. Patent No. 6,052,561).

Claim 14 was rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al.

Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Sanderford (U.S. Patent No. 5,742,635).

The Present Application

The present application is directed to a positioning method for a radio system which includes a test for determining whether a received signal is above certain thresholds; the system then uses this determination to determine what processing technique would yield the most accurate and efficient results.

One objective of the present application is to improve on prior radio location systems that utilize correlation techniques but use processing methods which are not suitable for densely populated environments with high levels of multi-path degradation.

The above brief summary of the present application is presented to the Examiner as background information to assist the Examiner in understanding the application. The above description is not used to limit the claims in any way.

The References of Record

Goren et al. is directed to a method for identifying wireless asset locations in a wireless communication network. The system provides a time of arrival estimate of a data signal which is received, demodulated, and decoded into a decoded signal.

Diener et al. is directed to a system and method for determining the location of a source of a wireless radio signal of an unknown or arbitrary type for which a signal correlation is not known or available.

Rudowicz et al. is directed to a call receiver that receives signals transmitted by orbiting satellites uses certain information transmitted by the satellites to calculate an estimated position.

Sanderford is directed to a method for improving a radio location system which maintains high signal to noise ration while identifying a feature of the received signal which is least affected by multipath.

The Claims Distinguish Patentably
Over the References of Record

Claims 1-3, 7-10, 13, 16, 17, 20-22 and 26 are not anticipated by Goren (U.S. Patent No. 7,069,025).

More specifically, regarding **claim 1**, Goren does not disclose the claimed method of "applying at least one test on the received signals prior to processing the signals to select a processing operation." The examiner refers applicant to col. 22 lines 31-35 and step 1575 in Figure 15 which discloses checking the quality of a correlation signal to determine if the signal is of sufficient quality to estimate time of arrival (TOA). Goren discloses the process of receiving a signal, processing the signal through a correlation function, determining the quality of the correlated signal, and estimating TOA using correlation processing or leading edge processing if the correlated signal is of sufficient quality. Goren does not disclose that a test is applied to the received signal, prior to processing the signal, in order to select a proper processing operation.

Accordingly, it is submitted that independent **claim 1** and **claims 2-4, 6-17, and 27** that depend therefrom are not anticipated by and distinguish patentably over the references of record.

Claims 4-6 and 23-25 were rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Diener et al. (U.S. Patent No. 7,006,838).

More specifically, regarding **claim 5**, Goren does not teach "wherein, when a leading edge gradient is below a gradient threshold value, the leading edge processing operation is selected." Examiner asserts that Goren in combination with Diener, discloses that if the leading edge gradient is below the gradient threshold value, the leading edge processing operation is selected. Examiner refers applicant to col. 8 lines 41-55 of Diener which discloses using a signal detector with a peak and pulse detector to determine the periodic or aperiodic nature of a signal or to classify a signal's type. Diener also discloses that this information can be helpful in deciding what type of signal processing to use in order to obtain TDOA measurements. Additionally, Examiner refers applicant to step 1580 in Fig. 15 of Goren which discloses estimating TOA by use of a correlation processing operation or a leading edge processing operation. Examiner asserts that "Diener et al. knowing the type of signal to be located after detecting from the peak information pulses that meet the configured criteria, can be useful in deciding on what type of signaling process to be use in order to obtain TDOA measurements to locate the source of the signal as disclosed in col. 8 lines 41-55; and Goren et al., estimate TOA step 1850 as disclosed in Fig. 15" discloses when a leading edge gradient is below a gradient threshold value, the leading edge processing operation is selected. It is respectfully submitted that Goren and Diener do not teach the claim limitations individually nor do they satisfy the deficiencies in combination. Neither Goren nor Diener disclose a leading edge gradient having a gradient threshold value and selecting a leading edge processing operation when the leading edge gradient is below the gradient threshold value.

As per **claims 4 and 6**, Goren does not disclose the claimed method of applying at least one test on the received signals prior to processing the signals to select a processing operation as stated in the argument above.

As per **claims 4 and 6, and 23-25**, Goren does not disclose the claimed method of applying at least one test on the received signals prior to processing the signals to select a processing operation.

Claim 14 was rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al.

As per **claim 14**, Goren does not disclose the claimed method of applying at least one test on the received signals prior to processing the signals to select a processing operation.

Claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Goren et al. in view of Sanderford (U.S. Patent No. 5,742,635).

As per **claim 15**, Goren does not disclose the claimed method of applying at least one test on the received signals prior to processing the signals to select a processing operation.

Dependent **claim 27** calls for a multi-part test. First, see claims 2 and 3, it calls for a level threshold test which results in either applying a correlation processing operation or performing a further test, specifically a leading edge gradient threshold test, see claim 4. If the leading edge gradient is above the threshold, the correlation processing operation is applied (see claim 6) and if it is below the threshold, a leading edge processing operation is performed. Neither Goren nor Diener, nor the combination, disclose or fairly suggest such a test protocol.

Claim 20 calls for a testing means that tests the RF signals and a means that applies one of correlation processing or leading edge processing based on the testing. Goren does not test the received signals first to decide which of these two processing techniques to use.

Accordingly, it is submitted that **claim 20 and claims 21-24 and 26** dependent therefrom are not anticipated by and distinguish patentably over the references of record.
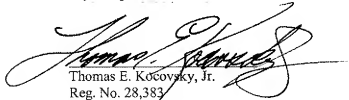
CONCLUSION

For the reasons set forth above, it is submitted that **claims 1-17, 20-24, 26, and 27** (all claims) distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he is requested to telephone Thomas Kocovsky at (216) 861-5582.

Respectfully submitted,

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